



**Multi-Way Stop for the Intersection of
E Bay Blvd and Sequoia St
City Engineering Department
July 2014**

Criteria for Multi-Way Stop Installation

Based on MUTCD 2009 Edition Standards

Criterion 1: Crash Experience

This criterion is **not satisfied** because there have been no accidents at this intersection in the past 12 months that could have been prevented by the installation of a Multi-Way Stop.

Criterion 2: 8-hour Vehicular Volume

This criterion is **not satisfied** because the vehicles per hour entering the intersection of East Bay Blvd and Sequoia St coming from East Bay Blvd is 124, which does not exceed the required minimum 300 vehicles per hour for any 8 hours of an average day, and the vehicles per hour entering the intersection from Sequoia St is 8 and the average delay to vehicular traffic is 1 second, which does not exceed the required minimum 200 vehicles per hour for the same 8 hours and the minimum average delay time of 30 seconds per vehicle during the peak hour.

Criterion 3: Major Road Approach Speed

This criterion is **not satisfied** because the 85th-percentile approach speed of traffic on East Bay Blvd is 29 mph, which does not exceed the required minimum of 40 mph.

Additional Notes

The level of service of the intersection was found to be a level A with an average control delay of 1 second per vehicle. It is also currently a multi-way stop. Most of the vehicles that use this intersection rolling stopped during the observed peak hour, with a total of 79 vehicles rolling stopping through the intersection out of 125 total observed vehicles. There were some that completely stopped and very few that didn't stop at all as well. This intersection was very similar to East Bay Blvd and Chippewa in terms of pedestrian and bicycle traffic, which makes sense due to their close proximity. People on bicycles and walking appeared to be exercising, adding to the previous conclusion that this portion of East Bay Blvd is a popular exercise route for the area. There were a few families with young children and a number of people walking their dogs as well. Also, most pedestrians and bicycles using the intersection would come from either direction of East Bay Blvd and stay on East Bay Blvd. The number of gaps was high, during the peak hour there were 68 gaps. It should be noted that about half of the traffic observed on Sequoia St were residents moving vehicles from parking spot to parking spot, or arriving/leaving via Wenonah St.



Prepared By:

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Date: 7-16-14

Reviewed By:

Timothy Hogg

Date: 7-28-14

Encl: 2009 MUTCD Section 2B.07 Multi-Way Stop Applications
Stop Sign Criteria Data for E Bay Blvd and Sequoia St
Stop Time Delay Tabulation
Stop Warrant Field Observations
Detailed TraxPro S East Bay Blvd Speed Report
2014 TraxPro Sequoia St Volume Report
2013 TraxPro S East Bay Blvd Volume Report



Section 2B.07 Multi-Way Stop Applications

Support:

01 Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.

02 The restrictions on the use of STOP signs described in [Section 2B.04](#) also apply to multi-way stop applications.

Guidance:

03 *The decision to install multi-way stop control should be based on an engineering study.*

04 *The following criteria should be considered in the engineering study for a multi-way STOP sign installation:*

- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
- B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. *Minimum volumes:*
 1. *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
- D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

Option:

05 Other criteria that may be considered in an engineering study include:

- A. The need to control left-turn conflicts;
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

2014 Multi-Way Stop Sign Criteria -- East Bay Blvd and Sequoia St Intersection Data

KEY									
= Area of Concern									
**Estimates and Projected Data are found by using a 2% per year growth rate									

General Information

Major Road	Minor Road	Total Control Delay (sec)	Average Control Delay (sec/Vehicle)	Level of Service	Total Pedestrians	School Children	Gaps	Bicycles	Main Road Speed Limit
East Bay	:Sequoia	3	1.00	A	14	1	68	8	25

Criterion 1: Crash Experience

Main Road	Minor Road	Correctable Crashes in Past 12 Months	Meets Conditions B
East Bay	:Sequoia	0	no

Criterion 2: 8-hour Vehicular Volume

Major Road	Minor Road	Vehicles per Hour on Major Road	Vehicles per Hour on Minor Road	Meets Condition C 1	Meets Condition C 2	Meets Condition B, C 1 and C 2 Combination to 80% of minimum	Major Street Volume Estimated** from:	Minor Street Volume Estimated** from:
East Bay	:Sequoia	124	8	no	no	no	:Past (2013)	:Current (2014)

Criterion 3: Major Road Approach Speed

Major Road	85th Percentile Approach Speed (mph)	Meets Condition C 3 from:	Speed Data from:
East Bay	29	no	:Past (2013)

Notes

- Pre-school children were counted as pedestrians, there were 3 of them and another on a bike
- Currently the intersection is a 3 - way stop

Sequoia St. and S. E. Bay Blvd.

Monday, 7-14-14

Partly Cloudy, 75°

4:25 pm - 5:25 pm (peak hour)

Sequoia St. Only Stop Time Delay (s)		
1	1	1
TOTAL:	3 sec	
	3 vehicles	
Average:	1.0 sec/vehicle	

Location	<u>S. East Bay Blvd. & Sequoia St.</u>
Day, Date	<u>Monday 7-14-14</u>
Conditions	<u>Partly Cloudy, 75°F</u>
Time	<u>4:25 pm - 5:25 pm</u>
Gap Length	<u>9 sec.</u>
Observer	<u>John Zarabanda</u>

$$G = W/4 + 3$$

About 12' per lane
8' for parking

STOP WARRANT FIELD OBSERVATIONS

Notes: Currently a 3-way stop

Rolling Stop: |

(Sequoia)

(a) * All zeros changed to 1 for stop time delay due to 3-way stop, and the idea that cars should lose a second in a complete stop which they should be doing



The City of Traverse City
Engineering Department

Job Stop Warrant Additional Notes for Project No. _____
Description S. East Bay Blvd. + Sequoia St. Computed by John Zarafonitis
Checked by _____ Date _____
Reference _____

Sequoia Only Stop Time Delay:

0 sec. 6 Sec. 0 sec.
 ↑
 upstream ↑

Sequoia Gaps Counted:

11

Additional Notes:

- * Children under school age counted as pedestrians
- # of Preschool Children: 111
 - ↳ on Bike: 1
- Guy with dog crossed twice to let dog out, counted both times (dog too)
- * Half the traffic observed on Sequoia where the residents moving cars around or ~~or~~ leaving via Wenonah (arriving)
- * Most vehicles rolling stopped
 - Some completely stopped
 - very few blew the Stop Sign

East Bay Blvd

(S of Chippewa St)

Speed

2013

Site Code: 000000000000
 Station ID:

Latitude: 0' 0.0000 South
 Pace Number

A to B, B to A	Start Time	0	15	20	25	30	35	40	45	50	55	60	65	70	75	9999	Total	Pace in Pace
10/28/13	01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	10:00	3	4	39	25	1	1	0	0	0	0	0	0	0	0	73	20-29	54
	11:00	2	3	31	26	10	0	0	0	0	0	0	0	0	0	72	21-30	50
	12 PM	2	12	36	37	15	0	0	0	0	0	0	0	0	0	103	21-30	63
	13:00	2	9	36	27	7	1	0	0	0	0	0	0	0	0	82	20-29	54
	14:00	6	13	40	22	9	0	0	0	0	0	0	0	0	0	90	20-29	52
	15:00	1	6	47	49	11	2	0	0	0	0	0	0	0	0	116	21-30	84
	16:00	4	7	41	43	11	3	1	0	0	0	0	0	0	0	111	21-30	72
	17:00	2	14	38	29	17	2	0	0	0	0	0	0	0	0	102	20-29	58
	18:00	1	5	22	22	4	1	0	0	0	0	0	0	0	0	55	21-30	38
	19:00	0	4	15	18	4	1	0	0	0	0	0	0	0	0	42	21-30	29
	20:00	0	3	7	13	5	0	0	0	0	0	0	0	0	0	28	23-32	18
	21:00	0	1	2	3	1	1	1	0	0	0	0	0	0	0	9	24-33	4
	22:00	0	0	3	4	4	0	0	0	0	0	0	0	0	0	11	24-33	8
	23:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	21-30	4
	Total	23	81	359	320	99	12	2	0	0	0	0	0	0	2	898		
Percent	2.6%	9.0%	40.0%	35.6%	11.0%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%			
AM Peak Vol.	10:00	10:00	10:00	11:00	11:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00	10:00
PM Peak Vol.	14:00	17:00	15:00	15:00	17:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	12:00	15:00	73
	6	14	47	49	17	3	1									1	116	

East Bay Blvd (S of Chippewa St) Speed

5102

Site Code: 0000000000

Station ID:

East Bay Blvd

(S of Chippewa St)

Speed

2013

Site Code: 000000000000

Station ID:

A to B, B to A		Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace in Pace	Number
01/30/13	0	15	0	20	25	30	35	40	45	50	55	60	65	70	75	9999	3	21-30	3
01:00	0		0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	19-28	1
02:00	0		0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	14-23	1
03:00	0		0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
04:00	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0		0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
06:00	0		0	1	6	10	1	0	0	0	0	0	0	0	0	0	18	22-31	14
07:00	2		2	7	43	30	4	1	1	0	0	0	0	0	0	0	87	20-29	62
08:00	1		13	38	25	7	0	0	0	0	0	0	0	0	0	0	84	20-29	54
09:00	1		8	31	17	4	1	1	0	0	0	0	0	0	0	0	62	20-29	42
10:00	0		9	23	26	7	7	0	0	0	0	0	0	0	0	0	65	21-30	42
11:00	1		8	21	26	8	0	0	0	0	0	0	0	0	0	0	64	22-31	40
12:00	3		9	31	34	2	13	2	0	0	0	0	0	0	0	1	94	21-30	56
13:00	2		11	27	33	8	1	0	0	0	0	0	0	0	0	0	82	21-30	51
14:00	2		11	39	31	8	0	0	0	0	0	0	0	0	0	0	91	21-30	59
15:00	3		12	63	41	9	2	0	0	0	0	0	0	0	0	0	130	20-29	89
16:00	4		11	47	44	7	2	0	0	0	0	0	0	0	0	0	115	21-30	76
17:00	4		8	38	30	6	0	1	0	0	0	0	0	0	0	0	87	20-29	57
18:00	0		6	29	28	8	1	0	0	0	0	0	0	0	0	0	72	21-30	50
19:00	0		5	20	16	3	0	1	0	0	0	0	0	0	0	0	45	20-29	31
20:00	0		4	15	16	5	0	0	0	0	0	0	0	0	0	0	40	21-30	27
21:00	0		1	3	9	3	0	0	0	0	0	0	0	0	0	0	16	23-32	12
22:00	0		0	7	8	0	0	0	0	0	0	0	0	0	0	0	15	22-31	13
23:00	0		0	2	3	2	0	0	0	0	0	0	0	0	0	0	7	24-33	5
Total	23		124	486	433	103	10	2	1	0	0	0	0	0	0	1	1183		
Percent	1.9%		10.5%	41.1%	36.6%	8.7%	0.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	07.00		
AM Peak Vol.	07:00		08:00	07:00	07:00	11:00	07:00												
PM Peak Vol.	16:00		15:00	15:00	16:00	12:00	12:00	17:00	12:00								12:00	15:00	

East Bay Blvd (S of Chippewa St) Speed

2013

Site Code: 000000000000
Station ID:

A to B, B to A

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Number	Pace Speed	Number in Pace
10/31/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19-28	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20-29	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21-30	3
04:00	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	22-31	10
05:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	20-29	47
06:00	0	1	7	5	1	0	0	0	0	0	0	0	0	0	0	0	63	43
07:00	0	10	30	25	2	0	0	0	0	0	0	0	0	0	0	0	62	44
08:00	2	5	33	17	5	1	0	0	0	0	0	0	0	0	0	0	56	20-29
09:00	0	9	28	24	0	0	0	0	0	0	0	0	0	0	0	0	21-30	41
10:00	1	3	21	26	5	0	0	0	0	0	0	0	0	0	0	0	21-30	56
11:00	1	3	36	28	6	1	0	0	0	0	0	0	0	0	0	0	21-30	56
12:00	2	6	28	30	12	0	0	0	0	0	0	0	0	0	0	0	22-31	50
13:00	3	18	45	19	5	0	0	0	0	0	0	0	0	0	0	0	19-28	56
14:00	2	10	41	26	5	0	0	0	0	0	0	0	0	0	0	0	20-29	57
15:00	2	10	56	36	7	0	1	0	0	0	0	0	0	0	0	0	20-29	79
16:00	0	9	43	28	7	1	0	0	0	0	0	0	0	0	0	0	20-29	62
17:00	3	8	39	28	10	1	1	0	0	0	0	0	0	0	0	0	21-30	57
18:00	2	12	30	7	5	0	0	0	0	0	0	0	0	0	0	0	18-27	35
19:00	1	10	13	4	1	0	0	0	0	0	0	0	0	0	0	0	16-25	18
20:00	0	3	19	10	3	0	0	0	0	0	0	0	0	0	0	0	20-29	26
21:00	0	0	5	7	2	0	0	0	0	0	0	0	0	0	0	0	21-30	11
22:00	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	15-24	7
23:00	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	24-33	4
Total	19	122	482	329	76	4	2	0	1034									
Percent	1.8%	11.8%	46.6%	31.8%	7.4%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	08:00	07:00	11:00	11:00	11:00	08:00	09:00								11:00			
Vol.	2	10	36	28	6	1	1								75			
PM Peak	13:00	13:00	15:00	15:00	12:00	16:00	15:00								15:00			
Vol.	3	18	56	36	12	1	1								112			

East Bay Blvd (S of Chippewa St)

Speed

Site Code: 0000000000

Station ID:

Page 5

A to B, B to A		Start	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
		Time	15	20	25	30	35	40	45	50	55	60	65	70	75	9999		Speed	In Pace
11/01/13		0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	21-30	3
01:00		0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
02:00	-1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	18-27	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19-28
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	20-29
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	20-29
06:00	0	0	0	1	1	5	5	5	0	0	0	0	0	0	0	0	11	21-30	9
07:00	0	0	17	17	44	11	2	0	0	0	0	0	0	0	0	0	74	18-27	53
08:00	1	9	47	17	2	2	0	0	0	0	0	0	0	0	0	0	76	19-28	57
09:00	2	19	30	9	1	0	0	0	0	0	0	0	0	0	0	0	61	17-26	39
10:00	2	13	35	15	1	0	0	0	0	0	0	0	0	0	0	0	66	19-28	44
11:00	1	20	34	18	1	1	1	0	0	0	0	0	0	0	0	0	75	18-27	47
12:PM	1	13	41	26	2	2	2	0	0	0	0	0	0	0	0	0	85	20-29	57
13:00	6	13	40	22	4	2	2	0	0	0	0	0	0	0	0	0	87	19-28	52
14:00	2	5	33	16	6	0	0	0	0	0	0	0	0	0	0	0	62	20-29	42
15:00	1	8	38	40	9	2	0	0	0	0	0	0	0	0	0	0	98	21-30	67
16:00	2	10	26	42	13	2	0	0	0	0	0	0	0	0	0	0	96	22-31	59
17:00	2	7	39	29	7	2	0	0	0	0	0	0	0	0	0	0	86	21-30	58
18:00	1	4	26	25	7	0	0	0	0	0	0	0	0	0	0	0	64	21-30	44
19:00	0	6	15	4	2	1	0	0	0	0	0	0	0	0	0	0	28	18-27	18
20:00	0	2	10	11	3	0	0	0	0	0	0	0	0	0	0	0	26	22-31	18
21:00	0	2	9	6	6	0	0	0	0	0	0	0	0	0	0	0	18	19-28	13
22:00	0	3	6	5	2	0	0	0	0	0	0	0	0	0	0	0	16	22-31	9
23:00	0	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	8	21-30	6
Total	22	153	487	308	64	12	0	0	0	0	0	0	0	0	0	2	1048	08:00	
Percent	2.1%	14.6%	46.5%	29.4%	6.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%			
AM Peak	09:00	11:00	08:00	11:00	07:00	11:00											76		
Vol.	2	10	47	18	2	1													
PM Peak	13:00	12:00	12:00	16:00	16:00	12:00											16:00	15:00	
Vol.	6	13	41	42	13	2											1	98	

East Bay Blvd

(S of Chippewa St)

Speed

2013

Site Code: 0000000000
Station ID:

East Bay Blvd

(S of Chippewa St)
Speed

2013

Site Code: 0000000000
Station ID:

A to B, B to A

Start Time	0	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace	
11/03/13	0	0	0	0	1	1	0	0	0	0	0	0	0	0	8	24-33	8	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19-28	1	
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	27-36	1	
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24-33	2	
07:00	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7	22-31	6	
08:00	0	0	8	5	1	0	0	0	0	0	0	0	0	0	14	20-29	12	
09:00	0	2	22	8	1	0	0	0	0	0	0	0	0	0	33	19-28	27	
10:00	0	9	21	21	5	0	0	0	0	0	0	0	0	0	56	20-29	36	
11:00	1	8	30	27	6	0	0	0	0	0	0	0	0	0	72	21-30	49	
12:00	2	11	35	24	5	0	0	0	0	0	0	0	0	0	77	20-29	50	
13:00	7	19	49	17	4	2	0	0	0	0	0	0	0	0	1	99	18-27	58
14:00	2	15	28	18	6	1	0	0	0	0	0	0	0	0	72	19-28	40	
15:00	2	17	27	28	5	2	0	0	0	0	0	0	0	0	0	20-29	46	
16:00	5	13	32	23	6	0	0	0	0	0	0	0	0	0	81	20-29	46	
17:00	1	7	37	30	6	0	0	0	0	0	0	0	0	0	81	21-30	57	
18:00	1	6	21	24	5	0	0	0	0	0	0	0	0	0	58	21-30	38	
19:00	0	2	11	18	7	0	0	0	0	0	0	0	0	0	38	22-31	27	
20:00	0	3	11	15	3	0	0	0	0	0	0	0	0	0	32	21-30	23	
21:00	1	0	8	11	1	0	0	0	0	0	0	0	0	0	21	22-31	16	
22:00	0	0	3	5	2	0	0	0	0	0	0	0	0	0	10	22-31	8	
23:00	0	1	2	3	0	1	0	0	0	0	0	0	0	0	7	22-31	4	
Total	22	113	348	290	67	6	0	1	0	0	2	0	0	2	851			
Percent	2.6%	13.3%	40.9%	34.1%	7.9%	0.7%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	11:00			
AM Peak	11:00	10:00	11:00	11:00	11:00	6									72			
Vol.	1	9	30	27	6													
PM Peak	13:00	13:00	13:00	17:00	19:00	13:00	14:00	1										
Vol.	7	19	49	30	7	2									1	13:00	13:00	
															99			

East Bay Blvd (S of Chippewa St) Speed

2013

Site Code: 000000000000
Station ID:

A to B, B to A

Start Time

15

20

25

30

35

40

45

50

55

60

65

70

75

9999

Total

5

19-28

3

24-33

2

19-28

3

19-28

1

19-28

*

2

24-33

2

29-38

2

21-30

13

18

57

75

20-29

45

64

20-29

*

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*

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*

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*

*

Vol.

Total

154

799

3072

2455

610

63

7

2

0

1

3

1

0

0

10

0.1%

0.0%

0.0%

0.0%

Percent

2.1%

11.1%

42.8%

34.2%

8.5%

0.9%

0.1%

0.0%

0.0%

0.0%

0.0%

0.0%

0.1%

10

MPH

Pace Speed

Number in Pace

Percent in Pace

50th Percentile

85th Percentile

95th Percentile

10 MPH Pace Speed :

Number in Pace :

Percent in Pace :

50th Percentile :

85th Percentile :

95th Percentile :

17 MPH

4691

65.5%

23 MPH

3152

29 MPH

32 MPH

44.0%

44.0%

24 MPH

Percent of Vehicles > 25 MPH :

Mean Speed(Average) :

Sequoia St.
(2000 Block, between Wenonah St. and S. East Bay Blvd.)
Count #109

Start Time	Mon	Tue	Wed	Thu	Fri	Average Day	Sat	Sun	Week Average
12:00 AM	07-Jul-14	*	*	*	*	0	*	*	0
01:00	*	*	*	*	*	0	0	0	0
02:00	*	*	*	*	*	0	0	0	0
03:00	*	*	*	*	*	0	0	0	0
04:00	*	*	*	*	*	0	0	0	0
05:00	*	*	*	*	*	2	2	2	0
06:00	*	*	*	*	*	0	0	0	0
07:00	*	*	*	*	*	0	0	0	0
08:00	*	*	*	*	*	13	13	13	13
09:00	*	*	*	*	*	12	12	12	12
10:00	*	*	*	*	*	3	3	3	3
11:00	*	*	*	*	*	7	7	7	7
12:00 PM	*	*	*	*	*	4	4	4	4
01:00	*	*	*	*	*	10	10	10	10
02:00	*	*	*	*	*	8	8	8	8
03:00	*	*	*	*	*	9	9	9	9
04:00	*	*	*	*	*	7	7	7	7
05:00	*	*	*	*	*	12	12	12	12
06:00	*	*	*	*	*	7	7	7	7
07:00	*	*	*	*	*	2	2	2	2
08:00	*	*	*	*	*	5	5	5	5
09:00	*	*	*	*	*	0	0	0	0
10:00	*	*	*	*	*	1	1	1	1
11:00	*	*	*	*	*	3	3	3	3
Day Total	0	0	0	46	59	105	0	0	105
% Avg.	0.0%	0.0%	0.0%	43.8%	56.2%	100.0%	0.0%	0.0%	
WkDay % Avg.	0.0%	0.0%	0.0%	43.8%	56.2%	100.0%	0.0%	0.0%	
Week	-	-	-	-	-	-	-	-	-
AM Peak Vol.	-	-	-	-	-	08:00	-	-	08:00
PM Peak Vol.	-	-	-	17:00	13:00	-	17:00	-	17:00
Grand Total	0	0	0	46	59	105	0	0	105
ADT	ADT 100	AADT 100							

SE Bay Blvd

400 block

Count #105

Site Code: 0000000000
Station ID:

Latitude: 0' 0.000 South

Start Time	Mon 29-Jul-13	Tue 30-Jul-13	Wed 31-Jul-13	Thu 01-Aug-13	Fri 02-Aug-13	Average Day	Sat 03-Aug-13	Sun 04-Aug-13	Week Average
12:00 AM	*	*	14	*	*	14	*	*	14
01:00	*	*	0	*	*	0	*	*	0
02:00	*	*	2	*	*	2	*	*	2
03:00	*	*	2	*	*	2	*	*	2
04:00	*	*	6	*	*	6	*	*	6
05:00	*	*	5	*	*	5	*	*	5
06:00	*	*	19	*	*	19	*	*	19
07:00	*	*	56	*	*	56	*	*	56
08:00	*	*	85	*	*	85	*	*	85
09:00	*	*	90	*	*	90	*	*	90
10:00	*	*	109	*	*	109	*	*	109
11:00	*	*	105	*	*	105	*	*	105
12:00 PM	*	*	117	*	*	117	*	*	117
01:00	*	123	*	*	*	123	*	*	123
02:00	*	121	*	*	*	121	*	*	121
03:00	*	128	*	*	*	128	*	*	128
04:00	*	139	*	*	*	139	*	*	139
05:00	*	128	*	*	*	128	*	*	128
06:00	*	94	*	*	*	94	*	*	94
07:00	*	76	*	*	*	76	*	*	76
08:00	*	89	*	*	*	89	*	*	89
09:00	*	43	*	*	*	43	*	*	43
10:00	*	23	*	*	*	23	*	*	23
11:00	*	5	*	*	*	5	*	*	5
Day Total	0	1191	388	0	0	1579	0	0	1579
% Avg. WkDay	0.0%	75.4%	24.6%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
% Avg. Week	0.0%	75.4%	24.6%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
AM Peak Vol.	-	11:00	10:00	-	-	10:00	-	-	10:00
PM Peak Vol.	-	16:00	-	-	-	16:00	-	-	16:00
	-	139	-	-	-	139	-	-	139